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A scalarization approach for vector variational inequalities with applications

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Abstract

We consider an approach to convert vector variational inequalities into an equivalent scalar variational inequality problem with a set-valued cost mapping. Being based on this property, we give an equivalence result between weak and strong solutions of set-valued vector variational inequalities and suggest a new gap function for vector variational inequalities. Additional examples of applications in vector optimization, vector network equilibrium and vector migration equilibrium problems are also given. © Springer 2005.

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Keywords

Gap functions, Scalarization approach, Vector equilibrium problems, Vector variational inequalities